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ABSTRACT

This monograph is designed to help employers, employees, managers, and union officials develop effective workplace policies and programs to prevent drug and alcohol abuse and other health problems. The text of the monograph: (1) presents information regarding the costs of drug and alcohol use in the workplace, and evidence of potential cost-savings (in dollars and in human energies and aspirations) that may have resulted from different programs; (2) describes the evolution of programs in the workplace, including evolution from single- to multi-problem area programs and the options available, ranging from primary prevention to treatment and rehabilitation; (3) describes different types of programs that have been introduced; and (4) briefly analyzes issues to consider in developing and implementing a primary prevention/early intervention program in the workplace. A reference list and an appendix listing sources of additional information about drug abuse prevention/health promotion programs in the workplace are included. (Author/WAS)

Drug Abuse Prevention Monograph Series

Preventing Drug Abuse in the Workplace

by
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and
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Foreword

This monograph is designed to help employers, employees, managers, and union officials develop effective workplace policies and programs to prevent drug and alcohol abuse and other health problems.

Specifically, it (1) presents information regarding the costs of drug and alcohol use in the workplace and evidence of potential cost-savings (both in dollars and human energies and aspirations) that have resulted and may result from introduction of different types of programs; (2) describes the evolution of programs in the workplace, including the evolution from single- to multi-problem area programs and the spectrum of options available from primary prevention to treatment and rehabilitation; (3) describes different types of programs that have been introduced; (4) briefly analyzes issues to consider in developing and implementing a primary prevention/early intervention program in the workplace.

It is hoped the materials included will be helpful in solving these difficult problems.

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Introduction

Wellness and health promotion, terms describing efforts to prevent illness and enhance healthy states, have recently come to national prominence. Traditionally, medical and related health services have been care or illness oriented, intervening after the onset of a problem, with treatment and rehabilitation efforts aimed at preventing further deterioration or sickness. The escalating costs of health care today, as well as the limited success of many treatment methods, have stimulated interest in promoting healthy lifestyles and preventing or postponing impaired health.

Business Week reported the following figures to illustrate the rise of health costs in the United States.

> Between 1950 and 1977:
> - Hospital charges skyrocketed to $65.6 billion from $3.7 billion.
> - Doctors' fees leaped to $32.2 billion from $2.7 billion.
> - Total expenditures for health soared to $162.6 billion from $12 billion . . . (estimated to) double by 1983.
> - Total health costs as a percent of GNP have nearly doubled from the 4.5% in 1950. At current rates of growth health costs could approach 10% of GNP by 1983.
>
> (*Business Week* 1978, p. 59)

All individuals are affected by these expenses, whether they are ill or not, or whether their health care is covered by insurance or not. The costs of health care benefits paid by a corporation for its employees must be included in the price of each of its products and services.

Intervention after a health problem has been diagnosed has become so costly that a variety of organizations have attempted to address the problem; for example, the Federal Government has engaged in health planning through such efforts as cost containment and certificate-of-need legislation. Prospective medicine, a prevention-oriented approach, has grown within the medical community; and community agencies, e.g., heart and lung associations, have emphasized screening and early detection measures. The concept of prevention in the workplace has similarly evolved, and with it, a variety of programs and service providers.

The substance abuse field has taken a leading role in the growth of prevention efforts, beginning in the early 1970s through efforts of the National Institute on Drug Abuse (NIDA), the Office of Education's demonstration and training projects, and the Law Enforcement Assistance Administration's programs. Community drug and alcohol agencies developed a range of prevention programs, primarily youth oriented and often

provided under school auspices. Rapid responses to the growing drug problem during the late 1960s and 1970s saw the rise of educational, affective, and "life skills" approaches. These methods were all designed to enhance the positive development of young people, thereby preventing substance abuse and other problems.

As community drug and alcohol services sought to expand their audiences and prevent abuse in older age groups, they naturally turned to settings in which adults could be reached, e.g., the workplace. At the same time, other health professionals concerned with the costs and results of treatment also sought to increase their services and effectiveness. Industry has taken a lead in providing the setting as well as the resources and personnel for a variety of prevention or health promotion efforts. Now the parallel efforts of drug and alcohol service providers and worksite-based health personnel appear to be joining in a unified and more comprehensive approach to wellness.

Daily, nearly 100 million women and men in the United States, fully two-thirds of the noninstitutionalized adults, go to work in factories, offices, or shops (Chadwick 1979). This opportunity for access to and impact on a major percentage of the population, including the families of employees, significantly increases the practicality of such employment-based programs, although it is estimated that less than 5 percent of workers are currently provided health promotion benefits.

Collings (1979) adds several additional factors of major importance in considering the value of work-environment programs. Despite increased job mobility, the majority of the workforce is stable, staying with one employer for many years. Long-term interventions, with resulting cost benefits over time, are therefore possible. Evaluation efforts are vastly improved by the opportunity to collect various health data periodically over many years, making it possible to measure personal, group, and program results. Participation rates in health services are also much higher when these are offered through corporate auspices, probably because of convenience, low or no cost, and quality factors/expectations.

The following sections of this monograph on the workplace provide an overview of the extent and costs of substance abuse, as well as other health problems; describe the development of business-, industry-, and labor-based health services, including the shift in emphasis to prevention; present the state-of-the art in wellness and health promotion at the worksite; and discuss issues of program development and evaluation.

The Extent and Costs of Impaired Employee Health

Employee Alcoholism

The extent and costs of alcohol abuse are of major concern to the American business community, costing an estimated $42.75 billion per year (White House Office of Drug Abuse Policy 1978). In 1979 (Kuzmits and Hammonds) lost productivity alone cost $12.5 billion, half of it caused by wasted time and materials, accidents, and absenteeism. However, these reports on estimated production costs are based on only males between the ages of 20 and 59 and do not include the additional loss resulting from employed women alcohol abusers.

In 1975 the cost to the U.S. military in lost production was over $411 million (Korcok and Seidler 1978), and alcohol abuse is seen as an even

greater problem today. The problems of specific corporations give a more understandable picture of these staggering figures. For example, in 1971 California's fourth largest bank estimated losing $1 million a year because of alcoholism problems among its 10,000 employees, and in 1972 the United States Postal Service estimated its alcoholism productivity losses at $168 million annually (Kuzmits and Hammonds 1979).

Poor health and high accident rates for the alcoholic employee demonstrate another aspect of the problem. Reports from the National Council on Alcoholism (NCA) indicate this worker is absent two to four times more frequently than the nonalcoholic and has two to four times more accidents (Kuzmits and Hammonds 1979). Other on-the-job productivity factors are unquantifiable, e.g., poor decisionmaking, lost sales, unsatisfactory morale. The Fourth Special Report to the U.S. Congress on Alcohol and Health (National Institute on Alcohol Abuse and Alcoholism 1981) assessed the financial cost alone of health and medical care associated with alcohol problems at $12.74 million in one year, with three times more sickness and accident benefits paid to alcoholic than to nonalcoholic employees (Saltman 1977).

The NIAAA Report estimated that half the 10.2 million problem drinkers in the United States in 1981 were employed, giving some idea of the extent of the problem. Twenty-five percent of employed alcoholics were thought by NIAAA to be white-collar workers, 45 percent professional or management level, and 30 percent manual workers. A new population of employed drinkers--teenagers--was recently reported (NIAAA Information and Feature Service 1980). The high rate of alcohol use by youth would predict a sizable percentage to be abusing or problem drinkers, many of whom would also hold part-time or full-time jobs. Data on the extent of this aspect of work-site alcoholism have yet to be gathered. However, alcohol abuse clearly continues to be a problem seriously affecting the workplace.

Employee Drug Abuse

The full extent of drug use and abuse at the worksite has not been well documented, but it has been of concern in a wide variety of industries. Use of illicit drugs was the initial problem in the workplace; however, the abuse of prescription and over-the-counter drugs is now seen as a more extensive problem. During the mid- and late-1960s when the use of illicit drugs became a more widespread social phenomenon, businesses attempted to determine the nature of the problem and the degree of use by employees. A 1973-74 usage study, reported by NIDA (Myrick and Basen 1979), found in a self-report survey of line employees in 20 companies that nearly 7 percent said they were current drug users, with marijuana most frequently used. The age correlations, however, give a better picture of the use behavior: 28 percent of those surveyed under 20 years and 17 percent of respondents 21 to 29 years of age admitted to current use. The most frequently cited use categories were marijuana only (37 percent), marijuana and amphetamines (10 percent), all drug categories except heroin (7 percent), and all drug categories (6 percent).

In an attempt to determine the extent of drug abuse in the labor force at that time, the Research Institute of America (Kurtis 1971) surveyed 80 New York-area companies. Ninety percent of these companies reported incidences of drug abuse within the company which they felt had resulted in thefts, higher insurance rates, poor work performance, and increased

absenteeism. They also expected to find many more abusers in their workforces within the next few years. An annual survey by the American Manufacturing Association (1972) asks industrial firms if they have drug problems; the rate of increased affirmative responses almost doubled between 1967 and 1970: in 1967, 7 percent responded yes; 1968, 13 percent; 1969, 23 percent; and 1970, 40 percent. Another study, reported by the New York State Narcotic Addiction Control Commission (Chambers 1971), examined drug use in that State's labor force. Significant rates of regular drug use were found in all occupational groups except farmers. (Among sales workers, for example, 12.3 percent reportedly used barbiturates and 8.6 percent regularly smoked marijuana.)

A survey of drug problems in the civilian sector of the Federal Government (MacNulty 1977) found that type of drug use was associated with the level of the organizations studied. Lower level, blue-collar staff tended to be involved in what MacNulty described as an illicit drug subculture within the organization. Among middle and upper level staff, he found a tendency toward the use and abuse of prescription drugs, often in combination with alcohol; women especially had prescription drug problems. MacNulty speculated that drug use in the professional ranks was probably more serious than his study revealed, because program operators believed that middle and upper level employees "worked hard to cover up for one another." This suggests the problematical nature of data generated by employee assistance programs (EAPs), which tend to focus primarily on lower level workers and overlook the substance abuse problems of upper level employees. Another indication of the extent of drug abuse in the workplace can be found in reported drug problems referred to treatment from the workplace. According to a 1978 report, 18 to 21 percent of the caseloads of EAPs in three surveyed companies consisted of drug problems (Jones 1979).

Rush and Brown (1971) studied 222 firms, 91 nonmanufacturing and 131 manufacturing, of which 53 percent had found drug abuse of some degree among their employees. Most of those surveyed also reported limited experience in dealing with the problem, and over half expected the problem to become more extensive. Their fears were confirmed a decade later by a *Newsweek* article that summed up the problem by stating, "Numbers are difficult to verify, but one thing is clear: a veritable pharmacy of illicit drugs is bought and sold in practically every industry" (Friendly 1980, p. 83).

An article in *Textile World* (1979) reported on a meeting of textile personnel and training directors with a Georgia Bureau of Investigation narcotics agent who noted that "every one of your plants has a drug problem," and the odds are 100 to 1 that any plant does. *Dun's Review* (Berwin 1978) cited the growing problem of business executives who abuse Valium to reduce or deal with job stress, while the publishing industry formed the Newspaper Industry Occupational Programmers group to deal with chemical dependency in their trade (Radolf 1979). It is important to note that drugs are a continuing and increasing worksite concern, with both licit and illicit substances now recognized as problems. Interestingly, addict employees support their habits through their wages rather than by selling drugs at work (Jennings 1977). However, they would sell outside the job or steal company or employee property. Although initial concerns regarding drug abuse in the workplace focused on illicit drug use, particularly heroin addiction, recent company surveys and usage descriptions have added misused legally prescribed and over-the-counter drugs (self-medica-

tion), combinations of substances including drugs with alcohol (polydrug abuse), and occasional (recreational) use to the dimensions of the problem.

There is mounting evidence that substantial numbers of employees are engaged in polydrug use and abuse, generally the use of alcohol in combination with other drugs. A report on EAPs in the Northwest found that approximately 25 percent of the alcoholics in one of the programs "were using pills in an abusive manner" and cited this as a reason "why drug abuse as a primary diagnosis shows up so little in company programs: alcohol and other drugs are mixed so often nowadays that a 'pure addict' is less common" (Jones 1979, p. 6).

According to a report on substance abuse programing in the Federal civilian sector, the problem in reporting drug abuse, as distinct from alcohol abuse, is that "there is no uniform means by which an individual polydrug abuser is identified. More often than not, the classification 'polydrug abuser' is not utilized; hence, the individual becomes identified as an alcohol or a drug case, based on the judgment and/or prejudice of the intake counselor" (MacNulty 1977, p. 20). However, in a review of recent research on polydrug abuse, MacNulty found that 15 to 20 percent of any given alcohol-abusing population were, in fact, polydrug abusers. The likelihood of polydrug abusers being labeled alcohol abusers is even greater in the workplace than it might be in other settings, because a significant portion of the staff members of EAPs are either recovered alcoholics or have been trained by alcoholism consultants.

The difficulty of estimating the extent of substance abuse in the workplace is further compounded by relatively recent shifts in thinking about licit drugs. A decade ago discussions of drug abuse rarely referred to cigarette smoking or the misuse of prescription drugs. Now these aspects of the drug problem are generally considered even more serious than the use of illicit drugs. For example, while the majority of Americans probably would not categorize cigarettes as a drug any more today than they did when surveyed by the National Commission on Marijuana and Drug Abuse (1973), many employee-assistance specialists in business and industry have become increasingly sensitive to smoking as a major form of substance abuse. Smoking can be particularly troublesome to employers because of the high costs of health care stemming from smoking-related illnesses. Rights of nonsmokers have also become a policy consideration. Within the last 3 to 5 years smoking prevention and cessation programs have proliferated in companies that a few years earlier might have focused on alcohol abuse alone.

One of the most striking differences between substance abuse in business and industry and similar abuse in school or community settings is the manner in which employers define the problem. While any use of substances among young people has been a cause for concern, or at least discussion, employers and supervisors frequently overlook workplace substance use unless it interferes with job performance. In most cases, even when employers and supervisors are aware of regular substance use, they are likely to refrain from commenting or interfering if the worker's job performance is unimpaired. In one group of companies studied by NIDA (Myrick and Basen 1979), supervisors and other middle-management staff estimated that 15 to 20 percent of their employees were regular drug users, primarily of marijuana; yet employers and supervisors in these companies, when asked about the impact of drug use on job performance, responded that "drug use either had a positive or neutral effect" (p. 26). In fact, Caplovitz (1976), in a study of regularly employed heroin addicts, found that while drug addiction affected work performance in some cases,

many addicts were able to perform satisfactorily with minimal impairment. Noting that among professional categories physicians are a high-risk group because of their easy access to a wide variety of drugs, Trice and Roman (1972) found that physicians were able to maintain heavy drug dependency over extended periods of time without serious impairment to their work, primarily because they were able to avoid involvement in the "deviant subculture." The concern of employers, therefore, remains centered primarily on job performance.

The costs of the various drug abuse patterns have not been adequately measured, but the few existing estimates report significant direct and indirect costs to corporations and to their employees. For example, MacNulty (1977) suggested that employee drug abuse cost the Federal Government between $91 million and $365 million annually. Trice and Roman (1972) list three cost dimensions to consider: the employees' behavior (absenteeism, inability to perform tasks, inefficiency, and accidents); the costs of health care for abusing employees (health care costs, insurance, overtime payments, etc.); and the impact of the abusing employee on fellow employees and supervisors (wasted time, energy, etc.). In 1978 the White House Office of Drug Abuse Policy estimated the costs of drug abuse at $10.3 billion, including crime, related illness and disease, treatment, and lost productivity (White House Office of Drug Abuse Policy 1978).

However, according to Trice and Roman (1972), some costs associated with alcohol abuse in the workplace probably would not follow from other drug abuse. The costs of grievance procedures and workmen's compensation are among these, since drug-related grievances and drug problems claimed in connection with the workplace are much less likely to be tolerated by employers or supervisors than those that are associated with alcohol abuse. Trice and Roman conclude that "well grounded research by uninvolved outsiders" is the only route to an accurate understanding of the drug problem in the workplace and its costs.

Other Employee Health Problems

The rapidly escalating costs of health care in general have also reached the company- and/or union-sponsored health benefit plans. According to recent calculations (Chadwick 1979) employers' costs for life and health insurance have increased eight-fold in the last 2 decades in terms of constant dollars and significantly more than this in terms of inflated dollars. At least 9 percent of the gross national product is spent on health care annually, over $175 billion or more than $800 per person.

From the prospective of American industry, the costs of health care conditions and illnesses are staggering:

- Premature employee death costs American industry $19.4 billion a year, more than the combined 1976 profits of Fortune's top five corporations.

- An estimated $10 to $20 billion is lost through absence, hospitalization, and early death among executives.

- Annual wages lost to cigarette-related illness are about $3 billion.

- About 32 million workdays and $8.6 billion in wages is lost annually to heart-related diseases.

- According to the American Heart Association, the cost of recruiting replacements for executives felled by heart disease is about $700 million a year.

If we add to those figures the lost skills, experience contacts, and wisdom of executives whose careers are cut short, and the diminished effectiveness of managers plagued by nagging maladies and emotional upsets, the cost soars beyond calculation.

(Goldberg 1978, pps. xi, xii).

These figures, which represent hundreds of millions of dollars annually for many of the largest corporate enterprises, also represent equally costly percentages of company expenditures for smaller businesses. Absenteeism, productivity, and efficiency are only a few workplace factors affected by poor employee physical and mental health. Health problems suffered by employees' families also contribute to the costs, directly through insurance coverage and indirectly through decreased productivity from the worried worker. It is obvious that unions and businesses share a concern about these escalating employee health problems, their costs, and the impact on both individuals and corporations.

Causes of Health-Related Problems and Programmatic Responses

Risk Factors

Many studies conducted in recent years have attempted to isolate the causes of various health problems, or at least identify the risk factors which can reliably predict subsequent problems. Heredity, environmental conditions, and personal behaviors are included in the research efforts, with the hope that prevention measures can address at least the latter two dimensions. In the field of substance abuse prevention the usual programs which target young people focus on the individual and those personal conditions of development which influence drug-taking/abusing behavior. The National Institute of Drug Abuse's (1975, p. 16) definition of primary prevention summarizes this orientation:

> Primary drug abuse prevention is a constructive process designed to promote personal and social growth of the individual toward full human potential; and thereby inhibit or reduce physical, mental, emotional, or social impairment which results in or from the abuse of chemical substances.

The attitudes and values that a young person holds about himself and others, as well as about drugs specifically, have frequently been found to be more significant than drug information in determining drug use (Auster 1968). Personal development qualities such as self-concept (Brehm and Back 1967), peer influence (Shute 1975), and decisionmaking skills form the basis of many program curricula and activities. In addition, alternative activities and self-fulfillment or participation opportunities have

been provided for youth considered at risk for drug abuse (Cohen 1971). However, few prevention efforts have attempted specifically to ameliorate the environmental variables which increase the risk potential. Table 1 summarizes the range of conditions now identified as the significant personal and environmental predictors of drug abuse.

The conditions presented as relevant to substance abuse problems can be readily related to many other health behaviors which produce impaired job performance, e.g., obesity, lack of exercise. The items starred (*) are those most frequently included in current youth-related prevention programs. The variables marked with a plus (+) are currently found to some degree in workplace-based programs and reflect the larger focus of prevention or health promotion activities dealing with a variety of employee health problems. Later chapters discuss these strategies in detail.

Workplace programs must consider an additional dimension, job-based risk factors. Trice and Roman (1972, p. 102) suggest four factors which "increase the chances of (substance-related) deviance" continuing, even to the level of total impairment:

1. Risks in which lack of visibility is most prominent, [including] occupying job positions with nebulous production goals, occupying positions in which hours of work and schedules of output are flexible and largely an individual option, and occupying positions which keep the employee out of the purview of supervisors and work associates.
2. Risks where the absence of structure is most prominent, [including] work addiction, work-role removal and occupational obsolescence, and entrance into a job position which is new to the organization.
3. [Risks involving] the absence of social controls [--for example] in job roles where drinking is a part of the work role, job roles in which an employee's deviant drinking or drug use actually benefits others in the organization, and instances of mobility from a stressful job position with considerable control over deviance into an equally stressful position with few or no controls.
4. Miscellaneous risk factors which may be particularly relevant to drug use, [including] role stresses which place individuals under severe strain but generally preclude their acting to reduce the stresses, organizational emphases on intensely competitive struggles for scarce rewards, and the presence of illegal drug users in the workplace.

One of the most frequently cited reasons for drug abuse and other health problems in the workplace is stress related to job conditions. For example, relationships have repeatedly been found between stress and the use or abuse of various substances within a variety of populations. Beyer (1978, p. 15) cites several stress-related work events, including "failure to obtain promotion, pressures to compete for promotions, deadline pressures . . ., and fear of success and failure," that are related to drug and alcohol problems. The Washington Business Group on Health (WBGH) (1978) also linked stress in the workplace with a wide variety of medical conditions, mental health problems, and drug and alcohol misuse. Stress, regardless of its origin, is only one example of many variables, individual or environmental, that can bring about health problems.

Table 1. Predictors of Potential Drug Abuse

Environmental variables	Individual developmental variables	Antecedent variables	Perpetuating variables	Results
†Economic pressures on families; e.g., inflation, need for both parents to work	Low religiosity	†Familial problems		IMPAIRED JOB PERFORMANCE
Racial discrimination	*Poor family life	†Marital problems		
Ineffective public education	*Use of alcohol or drugs in the family	†Financial problems		
Affluence	*Low self-esteem	†Unpleasant, unsatisfactory, or stressful work environment	Drug or alcohol abuse	
Lack of community/ extended family	*†Poor communication and social skills	*Peer pressure		
	*†Lack of information about the effects of drugs and alcohol	Status as a single person	Mental illness/ emotional problems	
		†Inability to handle or manage stress		
		*Low self-esteem	Poor physical health	
		†Lack of information about company substance abuse policies and/or health promotion/mental wellness/ substance abuse programs		

Primary, Secondary, and Tertiary Approaches

The possible levels of response to an individual's alcohol, drug abuse, or other health problems will vary with the particular corporate or union-sponsored employee assistance program. The EAP terminology refers to workplace-sponsored services dealing with a range of employee (and/or employee family) problems, primarily physical and mental health related. Employer programmatic responses usually originate in either medical or personnel departments and include help directed at the appropriate stage of the problem's development. Job impairment usually serves as a major gauge of the severity of the situation. The chart below summarizes the levels of responses and representative approaches at each stage. It uses substance abuse examples, with activities specific to this problem, but parallels can be drawn with other health situations, e.g., cardiovascular disease.

	Timing	Activities
Tertiary Prevention	During later stages of abuse	Treatment Institutionalization Maintenance Detoxification
Secondary Prevention	During early stages of abuse	Crisis intervention Early diagnosis Crisis monitoring Referral
Primary Prevention	Before abuse	Education Information Alternatives Personal and social growth

(Swisher 1979, p. 424)

In the past, tertiary prevention or treatment was often the first level of work-related intervention for drug and alcohol problems. However, earlier diagnosis and referral have been found to reduce job impairment more easily and less expensively, and this approach has gained approval from and use by both unions and employers. The primary prevention efforts analyzed and described in this monograph are the newest methods and are represented in various health promotion and education programs. Risk factors, as detailed previously, are addressed in informational, developmental, and enhancing activities which stimulate or reinforce positive health behaviors, thereby preventing or reducing the incidence of health problems (and subsequent job impairment). In effect, all employees, prior to the development of a health problem, are the audience for primary prevention or health promotion programs.

Summary

New directions in health service emphasize the prevention of illness and the development of positive lifestyles to enhance the wellness state. Many economic and social developments in the past few decades have necessitated the primary prevention orientation rather than the intervention and treatment approach. Drug and alcohol abuse programing have led in this refocus of priorities and continue, in the workplace as well as in other settings, to stress prevention. NIDA defines prevention activities on a continuum, beginning with information and continuing through education, alternatives, and intervention. The high personal, social, and economic costs of all forms of health problems will increase the emphasis on all stages of this continuum, and the workplace will be a primary setting for program development in these modalities.

Chapter II

Treatment Programs at the Worksite

Introduction

A perspective on the origins of workplace-sponsored drug abuse treatment methods, including the first company-based alcohol programs, is needed to understand the ensuing program developments and current orientations. Denial of the problem or dismissal of employees as corporate responses were replaced by an emphasis on employee assistance programs, e.g., expanded alcohol programs, with two possible directions. The first course acknowledged the growing drug abuse problem and broadened the alcohol program to focus on all abused substances, while the second orientation dealt with the full range of personal and health problems that could (did) lead to impaired employee performance. The timing of these thrusts overlapped, occurring in a particular union or company usually as a response to felt needs rather than on a proactive basis. However, in the past 30 years extensive development and expansion of workplace-sponsored treatment services have occurred, under both union and corporate auspices. A wide range of health-related treatment and intervention options are offered, with a growing emphasis on earlier diagnosis and intervention, hopefully thereby reducing the need for treatment (tertiary) programs.

The Development of Occupational Alcoholism Programs

Historical Perspective

Prior to the 1940s an employee with an alcohol problem, as shown by poor job performance, was usually seen as weak or immoral, with public mores dictating corporate attitudes. Punitive measures centering around the threat of or actual dismissal were the pattern, but these approaches often hurt the individual and were costly to the company, which lost an experienced employee in whom they had an investment. Beginning in the early 1940s pioneer efforts by voluntary organizations, including the National Council on Alcoholism (NCA), the Yale Center for Alcohol Studies, and Alcoholics Anonymous (AA), attempted to develop a more humane approach to employee alcoholism. Several corporations, e.g., DuPont, Allis Chalmers, and Consolidated Edison, were persuaded to establish alcohol impaired worker identification and treatment referral programs, the original format of occupational alcoholism programs (Trice and Schonbruun 1981).

Some industrial-based projects started in the 1940s and 1950s were narrowly limited, while others dealt with the full range of ailments and

disorders accompanying alcohol abuse, although focusing on impaired job performance. AA was a particularly important group in increasing the number of work-based services, with many of the early programs initiated either by recovered alcoholics who had participated in AA or by corporate executives who were impressed with their results. Many early programs were modeled after the AA procedures. Although the effectiveness of this rehabilitative approach helped eliminate the belief that alcoholism was an incurable addiction, many corporations were still reluctant to acknowledge alcohol problems among their employees and to discuss publicly their referral and treatment approaches. Writing in a history of job-based alcoholism programs for the New York State School of Industrial and Labor Relations, Schonbrunn (1977) noted that despite some initial corporate acceptance executives often viewed programs with fear and contempt, with at least one company operating its alcoholism program in secrecy for 5 years before publicly announcing its existence. Often "cover-up" approaches were designed to protect the image of the firm from the stigma of alcoholism.

Management and unions did not work together in these initial occupational approaches, overlooking or neglecting the value of the other in unionized companies and thereby reducing their potential impact (Trice and Schonbrunn 1981). Medical departments were usually responsible for program implementation, but the number of treatment services grew slowly during the 1950s despite the efforts of specialists in industrial alcoholism to persuade major corporations to develop policies and programs. In fact, the Committee on Problem Drinking of the Industrial Medical Association, an organization for medical professionals in business and industry, finally disbanded in 1960 after a decade of frustration (Schonbrunn 1977).

Two important concepts finally made a positive impact on corporate alcohol program development. The first of these was the threatened "job loss due to poor job performance" approach suggested by Dr. Ralph Henderson of the Yale Center for Alcohol Studies and others (Schonbrunn 1977). This threat was a strong motivator for an employee with a drinking problem to seek help and to continue with a rehabilitation program. The use of "impaired job performance" grew as a rationale for employer intervention and an inducement for employee participation. Job performance as the basis for intervention provided a strong incentive for an employee with a drinking problem to accept the helping services offered; continued employment depended upon participation and job behavior. This philosophy is particularly valuable in intervening with workers before their drinking problems become so severe that rehabilitation efforts are unlikely to be effective.

The second approach was the disease concept of alcoholism proposed by E. M. Jellinek, Director of the Yale Center, who theorized that this disease followed a pattern of progressive psychological and physiological damage similar to that of contagious diseases (Jellinek 1960). Punitive approaches could not be justified under this model, and reforms in laws related to alcohol problems indicated the change in attitude.

In the early 1960s the NCA increased its efforts with employers to develop new occupational alcoholism efforts, with the number of programs increasing more than 600 percent during that decade. Another significant factor in the growth of occupational efforts to combat alcoholism was the passage of the Hughes Act which in 1970 established the National Institute on Alcohol Abuse and Alcoholism, including an Occupational Programs Branch. Two grant programs were created. One

supported demonstration projects to test different models of delivering treatment services in the workplace. The second supported a nationwide network of occupational program consultants (OPCs) charged with developing awareness about occupational alcoholism programs, assisting the public and private sector in establishing such programs, and providing technical assistance to existing programs. NIAAA efforts are credited with much of the rapid growth of occupational programing in the past decade. Another organization currently instrumental in alcohol abuse occupational program development is the Association of Labor-Management Administrators and Consultants on Alcoholism (ALMACA). From its beginning in 1971, this organization has grown from 12 members to over 1,000, representing service providers in various industrial alcoholism programs.

Goals and Activities

The major goals of occupational alcohol programs which have developed can be summarized (NIAAA 1978) as:

- Reaching employed problem drinkers in order to reduce the costs of poor performance and absenteeism associated with drinking
- Minimizing grievances and arbitrations associated with employee alcohol problems
- Recovering the health and efficient job performance of valued employees
- Providing assistance to families of employed problem drinkers and/or to the family members with drinking problems
- Intervening early enough to obtain substantial rehabilitation.

The scope of activities in an occupational program can range from the development and dissemination of written policies and procedures regarding the company's response to the problem of employee alcohol abuse to the implementation of an in-house treatment program. Gaultieri et al. (1978) classified these options in four models:

- Consultation only
- Assessment - Referral
- Diagnostic - Referral
- Diagnostic - Treatment (both inpatient and outpatient).

Shain (1978) described possible program components as:

- Written policy
- Labor-management involvement
- Companywide information and education
- Supervisory training
- Identification and referral procedures
- Availability of treatment resources
- Follow-up procedures.

Factors to be considered in implementing a program include the degree of emphasis on early detection, the use of constructive confrontation, the organizational location of the program in the corporate structure, and the nature of the relationship with treatment facilities (Shain 1978). The five basic steps which most programs employ are (1) recognition, (2) respect, (3) referral, (4) restoration, and (5) readjustment.

Current Program Status

The number of occupational alcoholism programs has risen rapidly in the past decade, increasing from 500 to 2,400 programs over a 5-year period (NIAAA 1978); 2,000 of these programs were in the private sector and the rest in the public domain. Despite the substantial increase, this still represents only a small proportion of the 500,000 U.S. corporations employing 100 or more persons.

A recent Executive Caravan Study (NIAAA Information and Feature Service 1981) by Opinion Research Corporation is the fourth in a series analyzing attitudes, knowledge, and behavior of U.S. business executives regarding various aspects of alcohol use. The study sampled top and middle managers from the 500 largest manufacturing firms and the 50 largest utility, transportation, merchandising, banking, insurance, and financial companies. Fifty-seven percent of those polled said their corporation had an employee alcoholism program (compared with 25 percent in 1972). Thirty-nine percent of the executives regularly saw employees with a drinking problem, and 80 percent of workers identified as having alcohol problems were said to have achieved control over their drinking in companies with on-site programs.

Evaluation and Benefits

The success of work-based programs varies from 50 to 70 percent, with 66 percent cited as the average industry success rate nationwide (Von Wiegand 1972). For example, DuPont (1979) reported 66 percent of 950 alcoholics rehabilitated in a Florida Department of Health and Rehabilitative Services Study. Twenty-two nonwork-setting evaluations showed the majority of programs averaging from 18 percent to 35 percent (Mandell 1971). Trice and Roman (1972) note that if total rehabilitation, not just job retention, is the success criterion, company programs show rates of 50 percent versus 20 percent for State hospital programs. Earlier identification, intervention, and treatment, as well as continuing employment and job stability, are the factors credited with these high success statistics. Confrontation on poor job performance appears to be the most powerful motivator, acting as a strong inducement to program participation.

The financial benefits of workplace intervention programs have not been well documented. Korcok (1978) reported on a cost-benefit analysis undertaken by Johns Hopkins School of Public Health. A sample of 12 industrial alcoholism programs available to 134,000 employees saved the corporations approximately $500,000 in reduced absenteeism alone during their first year of operation. The treated workers had lost an average of 445 hours from work in the year prior to treatment, and only 263 hours were lost following referral to treatment. In 1976 Firestone Tire and Rubber Company conducted a cost analysis of their alcoholism program; one-third of the participants, 723 individuals, were included. Employee attendance, accident and sickness benefits, and hospital/surgical and medical costs were reviewed for each participant for 1 year prior to and 1 year following treatment. Annual savings to the company were calculated at $1.7 million or $2,350 per individual, according to Fielding (1979).

In summary, the number of occupational alcoholism endeavors has grown significantly in the past decade with more acceptance by management and unions and with relatively good rehabilitation and retention statistics. These programs promise corporate financial and employee personal benefits, but the continuing and/or growing alcohol-impaired employee problem is yet to be addressed sufficiently or satisfactorily.

The Development of Occupational Drug Abuse Programs

Management Responses to Employee Drug Abuse

The drug scene of the late sixties and early seventies in America became increasingly visible at the workplace, although its presence was often refuted or overlooked. Existing intervention and treatment programs had to enlarge the range of problems they handled and to provide additional services and referral sources.

Initially industry's position regarding drug abuse among its employees was denial (not unlike early parental response). Urban (1973) found that retaliatory, punitive measures, based on employer disapproval, often followed the denial phase. Some screening and policing efforts including random urinalysis and the hiring of undercover agents were undertaken, and the obviously using or selling employee was often dismissed immediately. The possible legal issues and the difficulty in proving accusations caused some corporations to refrain from acting at all except in the most obvious cases. The punitive orientation, whether in attitude and/or actions, of management appears to have decreased significantly in the past 15 years. Stevens (1970) reported that a 1969 survey of 500 companies showed 97 percent of the executives questioned would fire a drug-using employee. Rush and Brown in 1971 found that 21 percent of 222 companies questioned favored immediate dismissal, while Johnston (1971) reported that 23 percent of his sample in the Akron area advocated this policy. However, Myrick and Basen (1979) later cite only a 10-percent preference for the firing option.

Spurred by the Drug Abuse Office and Treatment Act of 1972 which mandated a more humane approach to drug abuse among Federal civilian employees through "appropriate prevention, treatment, and rehabilitation programs," and by a 1973 U.S. Attorney General's ruling that included alcoholics and drug addicts in the definition of handicapped under the Rehabilitation Act of 1973, many public and private employers initiated attempts to provide effective intervention services for employees with drug problems. Some informal referrals to treatment services resulted, while formal policies to refer users to external treatment were reported in about 35 percent of both Rush and Brown's (1971) and Johnston's (1971) samples. A later paper by Steele (1976) examining union attitudes and commitment revealed that 46 percent of 400 respondents noted referral policies and 26 percent indicated union counseling programs for drug users.

A range of treatment/rehabilitation efforts have been provided under corporate auspices. Buying services, particularly through third-party payments from a community agency, is one option. Another is the consortium approach where several companies share the development and use of a facility. Jennings (1977, p.559) cites the Downtown Drug Center in New York City which "is supported by funds from A.T.&T., American Stock Exchange, Chemical Bank of New York and Merrill Lynch". In another alternative, unions sponsor rehabilitation facilities such as the one offered through UAW Local 961 that Chrysler publicizes among its employees. Apparently resistance and negative attitudes toward drug programs by management and labor leaders were reduced when unfamiliarity, apathy, and a paucity of knowledge about what to do were addressed.

The general lack of a planned corporate response can be shown in an estimate by Dr. Steven Levy (1974), then Director of Research and Pro-

gram Planning of the Training for Living Institute, that only 100 companies across the nation had active drug abuse programs. It was for such reasons that several large companies sponsored the "First Symposium on Drug Abuse in Industry" in May 1970 and addressed issues such as policy formation, sample policies for various size companies, drug screening procedures, and treatment options. These efforts initially were limited to large east coast metropolitan areas; Urban (1973) found that businessmen in other areas either refused to acknowledge the increased exposure to drugs of the people within their employment or felt that they did not have a substance abuse problem. At approximately the same time, unions began to address drug abuse among their members, and the American Federation of Labor (AFL) Community Services Committee sponsored one of the first union-based drug seminars in 1970.

The Department of Defense (Korcok and Seidler 1978) began a major program of education, rehabilitation, and treatment to combat both the lost productivity of its personnel and the high social cost. The military, like the private sector, generally emphasizes recognition of problems, intervention, referral, treatment, and rehabilitation. Inductees to the services are introduced to military policy on alcohol and drug use, identification methods, familiarization with health services available, training of supervisors to confront drug and alcohol situations, and long-term employment possibilities following successful treatment. These efforts are continuing today, with emphasis on assessing, determining, and detecting drug abuse and drug trafficking; education and training; treatment and counseling; discipline and discharge where necessary and appropriate; prohibiting drug abuse paraphernalia possession, use, and sale; and working collaboratively with national alcohol and drug abuse prevention programs.

Factors influencing corporate responses include the legal, as well as social, sanctions of alcohol use as compared to various other drug uses. Enforcement aspects are a factor in the latter instance, particularly in relation to sale/distribution at the worksite. Jennings (1977), in the Personnel Journal, suggests that excess drinking is solitary while drug abuse is socially "shared." Also, more empathy is shown toward the alcohol abuser, to whom more fellow employees can relate, hangover and all. Program development and implementation necessarily reflect the attitudes of the management and/or union personnel responsible for its organization.

Program Implementation Problems

The fact that most businesses have not utilized community treatment alternatives very extensively may result from:

(1) a lack of knowledge concerning resources available
(2) a desire to keep "hidden" internal problems or abusing employees
(3) fear of law enforcement requirements or actions
(4) concern that they will be asked by agencies for additional financial assistance or to hire rehabilitated clients, and
(5) inappropriate treatment options and personnel available for the employed drug abuser.

In many cases the majority of employees are unaware of the referral or treatment programs available through their workplace. One study (Myrick and Basen 1979) reported that management respondents perceived their programs as successful, yet less than 10 percent of the employees knew of

the programs' existence. Programs that focused only on drug and alcohol abuse indicated that this concentration on substance abuse created specific types of problems (Erfut and Foote 1977, p. 3). First, the narrower scope:

> was felt to be too limited, not allowing the program to respond to the full range of problems experienced by employees. Second, there is a stigma attached to substance abuse which keeps some people away, and discourages early detection and referral for treatment. And third, the specific focus on alcohol and/or drug abuse tends to encourage nonprofessionals (e.g., supervisors) to try to diagnose the problem before referring people to the program.

Substance-specific workplace interventions have been valuable but have been increasingly seen as being too limited in their approaches. Some programs have deliberately expanded from alcohol and drugs to include a wider range of employee problems, while others progressed directly from alcoholism assistance to the general employee assistance focus.

Program Results

The results of the various drug and alcohol worksite treatments have not been adequately measured. Smith (1978) suggests that the basic question to ask is, what kind and what amount of intervention works best for what kinds of employees in what kinds of environments? DuPont (1979) offers specific indicators to consider in the evaluation, e.g., employment status, job performance level, criminal involvement, disciplinary action, sick leave and benefits, and absences, while indirect indicators could include marital stability, levels of psychological and social functioning, and accidents off the job.

Data relevant to extent of participation and financial returns for companies utilizing combined drug and alcohol services in their EAPs are incomplete at best. The Oldsmobile Division of General Motors (Alander and Campbell 1975) computed a savings of over $225,000 as a result of a reduction in lost man-hours. More recently G. M. Chairman Murphy reported (Vicary 1979) that their 7-year-old drug and alcohol recovery program produced a 40-percent reduction in lost time for employees entering the program, a 60-percent reduction in sickness and accident benefits, and a decline of up to 50 percent in grievances, disciplinary actions, and on-the-job accidents. He added that for every dollar spent for employee treatment, more than $2 has been returned. Dr. Robert Wiencek, G.M.'s corporate medical director, reported (1978) that since 1975 their benefit program has provided for detoxification, rehabilitation, and outpatient substance abuse treatment, an important consideration for both cost and participation factors. Program costs for the Federal Civil Service were estimated at $5 per employee with a potential cost savings annually of between $135 million and $280 million (U.S. Senate 1970), and insurance carriers have estimated that $5 are ultimately saved for every dollar spent on rehabilitation (Von Wiegand 1972).

The Development of Broad-based Occupational Treatment Programs

Historical Development

After the 1950s when job impairment was emphasized as a rationale for corporate intervention, expanded occupational treatment programs included the many ramifications of alcohol abuse as well as other problems in their own right, e.g., psychiatric disorders, marital and family problems, and health factors. NIAAA helped widen the programmatic options by endorsing the "broad brush" or general employee assistance concept, in which any poor work performance related to health and/or emotional problems was identified and referred for intervention and treatment. Some companies originated mental health approaches, using industrial social workers and mental health professionals as staff. Weiner, Akabas, and Sommer (1973) noted that the Social Security Administration had a counseling program available to employees as early as 1944, while the Amalgamated Clothing Workers of America and the New York Clothing Manufacturers Association were addressing employee mental health problems with the help of psychiatric social workers in the 1960s. Many unions urged similar program expansion in conjunction with corporations. For example, the New York Shippers Association and the Longshoremen in New York City have worked together, following initiatives by the union (Trice 1979). Perlis (1977) suggested that a strong union emphasis should be on "achieving a well-adjusted human being." Often AFL-CIO community services also provide counseling services, helping employees and members of their families.

Arguing that labor and management must be concerned with more than just wages and hours, Leo Perlis (1977), then Director of Community Services for the AFL-CIO, advocated what he called a "human contract," developed jointly, without adversary relationships, by labor and management. It "should concern itself with those personal and family problems which are not covered by the union contract," and

> These may be placed in five general areas: a) familial (marital problems, child-parent relationships, in-law problems); b) consumer (landlord-tenant problems, debt counseling, money management, merchant-consumer problems); c) health (alcoholism, drug abuse, hypertension); d) legal (accidents, contracts, buying, selling); and e) financial (supplementary assistance, moonlighting, food stamps). These areas of human concern are not described here in the order of their importance, but their impact upon the well-being of the troubled worker can be strong enough to cause absenteeism, turnover, in-plant disruption, poor morale, and the loss of productive capacity (p. 32).

In many instances EAPs are offered directly by unions. Shop stewards usually perform the same function for these programs that supervisors perform in company-sponsored programs, e.g., constructively confronting troubled employees and linking them with the program's services. One such program was established at the Union Health Center of the International Ladies' Garment Workers' Union, serving approximately 150,000 workers in New York and New Jersey.

Troubled Employee Approaches

Because of the broadened base of help available, by the mid-1970s many worksite interventions were labeled "troubled employee" programs. In addition to substance-specific problems, they assisted employees with a range of acute personal and/or work-related situations, including interpersonal problems, phobias, depression, sexual difficulties, and financial crises. The worksite manifestations of these problems include low productivity, waste, absenteeism, poor work quality, employee conflicts, and accidents, all costly to the company and the individual. Kuzmits and Hammonds (1979, p. 242) suggested that, "Due to a genuine interest in the health and welfare of the employee, a desire for maximum employee productivity and a heightened spirit of social responsibility," many organizations now seek to identify these people and motivate them toward professional assistance.

Gulf Oil Corporation, as one illustration, in 1973 inaugurated a comprehensive program that develops and implements an assistance plan for each troubled employee and follows-up after therapy to gauge its effectiveness or the need for further treatment. The INSIGHT program sponsored by Kennecott Copper Corporation also uses a comprehensive approach. Interestingly, during its first 9 years the majority of its clients had marital and familial problems, rather than those of substance abuse (Kennecott Copper Corporation). In addition to offering counseling and other forms of assistance to individual employees, some programs also provide services to employees' families. For example, nearly half the 12,000 cases seen by the INSIGHT program between July 1970 and the end of June 1979 involved employees' dependents. By offering services to individual employees and to their families, EAPs thereby serve the entire community.

Mental Wellness Programing

Another broad program classification used to describe a wide range of employee treatment services is mental wellness. In many cases these also developed from alcoholism programs. A recent conference report (Barrie-Borman et al. 1978) on mental wellness projects in the workplace divided the various components into several general categories:

Alcoholism and alcohol abuse programs
Drug abuse programs
Psychiatric and psychological services
Life crisis counseling, including assistance with
  financial and legal problems
  occupational stress programs
  insured mental health benefits.

Mental wellness programs take a variety of forms. INSIGHT's program, for example, is based on a voluntary intake and referral system that relies heavily on local community services for followup and treatment of employees' problems. Many employee counseling and industrial social work centers, on the other hand, are located in the same facilities as the workers they are designed to serve and are staffed throughout the day. Other programs rely on the more traditional approach of supervisor confrontation and subsequent referral to company medical units or outside treatment facilities.

Implementation Problems

Trice (1979, p. 183), in a discussion relevant to substance-specific program usage, summarized the major barriers to program implementation. These also generalize well to similar situations which the broader EAPs have experienced.

1. Bypassing is seen as "the most pernicious problem," whereby managers or shop stewards in conjunction with treatment personnel bypass established policy and procedures. Without using the motivator of constructive confrontation an employee is rushed to treatment, in the process potentially being prematurely (and inaccurately) labeled.
2. Unions have often been overlooked in the development of programs, thus losing the joint intervention power possible, and the opportunities for community support.
3. There has been a lack of effort to deal with the unique problem aspects experienced by female employees.
4. Implementation is sporadic or inconsistent, often because of unfamiliarity with procedures by policy implementers.
5. Apathy or unfamiliarity exist on the part of high level management.
6. Insurance coverage limitations often restrict treatment options.
7. High status, e.g. executive level personnel are often excluded from procedures.
8. Assuring confidentiality can often be a problem when so many persons can be involved in the helping process.
9. Supervisory personnel may not be adequately prepared to confront various problems and performance situations.

These situations have, in varying degrees, restricted or interfered with the development and implementation of worksite-sponsored program efforts. However, they are not insurmountable problems, and subsequent development can address these points, using past experience and current knowledge. Despite the concerns expressed, therefore, significant help can be offered to employees on a treatment level through the workplace.

Program Evaluation

Trice (1979, p. 183) reports that "Efforts to gauge the success of these various types of job-based interventions have been confined almost entirely to evaluation of...those with a central focus on alcoholism." In fact, the evaluation of EAPs generally has been weak by almost any standard. One of the most detailed studies of costs and benefits in EAPs oriented primarily to the treatment of existing problems was a systematic review of client data from eight programs in the Detroit area (Foote et al. 1978). This study analyzed a variety of factors that were assumed to be correlated with costs stemming from substance abuse and other problems. These factors included absenteeism, number of disciplinary actions received, number of grievances filed, number of on-the-job accidents, number of visits made to the company medical unit, amount of workmen's compensation paid, and amount of sickness and accident benefits paid. Although the study found significant reductions in these variables, the authors concluded that the data were insufficient to arrive at a valid cost-benefit analysis. Important factors not covered by the study included:

- The time lag between "improved performance of program clients and realization of savings by the company," which will vary from one company to another
- Future savings due to program interventions--an accurate cost-benefit analysis requires data over a long period of time
- An account of costs, such as covered medical expenses and sick leave, that in themselves might be "benefits" of a successful program, and a way of including these figures in an overall cost-benefit analysis.

The importance of this study lies both in its extensiveness and in its clear conclusion that considerably more work remains to be done in order to arrive at accurate, reliable cost-benefit analyses.

Another study, a survey of mental wellness programs conducted by the Washington Business Group on Health (1978), noted that while many companies reported that their programs had achieved noticeable benefits such as improved employee productivity, reduced absenteeism, improved morale, and lower insurance premiums, only a few companies had any confidence in the measurability of costs and benefits and, in general, there were insufficient data. Although companies continued to offer extremely optimistic estimates of program benefits in relation to costs, DuPont (1979) speculated that, despite protestations about the importance of cost-benefit analysis, many companies are relatively indifferent to the issue. In summary, EAP data on number of program participants, types and amounts of services used, costs, and results are sorely lacking; the implications for research opportunities (and needs) cannot be overstated.

Summary

A variety of terms have been used to designate the range of programmatic options in workplace intervention and treatment of health problems, e.g., employee assistance, troubled employee. Both physical and mental conditions may be included, as well as employees at every level and sometimes their families. The problems addressed may be either personal or work related in nature, but are all considered costly to the individual and to the company. Alcoholism services paved the way programmatically, but today a "broad brush" or general assistance concept is prevalent, intervening and referring for treatment any employee whose work impairment appears related to health or emotional problems. Recognition of the value of the experienced, trained employee, as well as increased social responsiveness, have stimulated new corporate services and increased program options. Unions have also taken a leading role in urging expanded treatment modalities. Poor work performance has been the most important variable in motivating employee participation, and current data suggest that program costs ultimately are recovered in savings in sickness and accident benefits, grievances, training, absenteeism, etc. However, adequate evaluation has been sporadic and generally incomplete, and cost-benefit analyses are needed in every aspect of health treatment (tertiary) programing. Notably, the majority of workers are still not covered by comprehensive treatment options, although extensive expansion of workplace-sponsored services has occurred in the past 30 years.

Chapter III

Prevention and Health Promotion Approaches in the Workplace

Introduction

The previous chapter presented a discussion of worksite referral, treatment, and rehabilitation approaches dealing with employee physical and mental health problems, particularly those associated with substance abuse. EAPs originated in a concern for the alcoholic employee and gradually expanded to include a range of problems that interfere with job responsibilities and productivity. The enlarged focus naturally turned toward early diagnosis and referral, an intervention approach designed to help the individual before problems become too severe, to reduce job impairment, and to limit expenditures for extended treatment. (Programmatically, early intervention becomes the link among the various approaches: tertiary, i.e., treatment and rehabilitation; secondary, i.e., early diagnosis and referral; and primary, i.e., problem prevention or positive health enhancement.) Early intervention modalities, therefore, are an important part of the prevention continuum, with information, education, and alternatives being the modalities of primary prevention.

Prevention in the corporate setting uses a variety of program initiatives and is usually termed health promotion or disease prevention. Green (Den Boer 1980, p. 5) defines health promotion as

> any combination of health education and related organizational, economic, or political interventions designed to facilitate behavior and environmental changes conducive to health.

Kreuter and Dwore (1979, p. 8) add that the uniqueness of this concept is "in its intended impact on maintaining or establishing positive health norms," e.g., societal standards.

The prevention orientation has found interest, even enthusiasm, in some sectors of the workplace for a variety of reasons. In addition to potentially reduced direct health care costs through health promotion, Collings (1979, p. 2) notes that "Additional opportunities include increased presenteeism and productivity on the job; reduced coping problems among individual employees (both management and nonmanagement); and enhanced functional efficiency of the corporate organism as a whole."

A survey by the Washington Business Group on Health reported that there has been "very rapid growth" in health promotion programs since 1975, partly because employers viewed these programs as a means of holding down the costs of employee medical care and insurance benefits. Most of the programs included in the survey, according to WBGH, "were started because they were thought to be good, rather than as a result of economic analysis or proved health outcomes. Corporate decision makers

are getting increasingly demanding for evidence of a positive cost-benefit relationship" (WBGH 1978, p. 3).

While cost factors are of major concern, business and industry participate in EAPs for a variety of reasons, not the least of which is corporate public image. Pearson (1980) and Vickery (1979) note the opportunities for improved public relations, community support, and assistance in employee recruitment (Weinberg et al. 1980), as the public demands greater corporate health, social responsibility and accountability (Tabershaw 1977). Therefore, corporate interest in health promotion has had both an internally pragmatic and externally humane orientation.

Substance Abuse Prevention Efforts

Information

Most current substance abuse primary prevention endeavors in business settings focus on information such as employee mailings, posters in the work environment, and other printed materials that give factual data about the dangers of drug and alcohol misuse. Chase Manhattan Bank (Rush 1971), for example, sent a brochure entitled "Drugs" to the home of every employee, discussing both dangers of abuse and community treatment services available. Myrick and Basen (1979) found that seven of eight companies they surveyed had drug information programs, but these were considered valuable primarily for employees with drug abuse problems in their immediate families. Some information efforts are incorporated into larger health education endeavors, such as Illinois Bell Telephone Company's ongoing educational program, which informs its employees about a variety of health issues and concerns.

In another type of information program, managers and employees are shown films and hear speakers in order to make them more aware of the various types of drug-related behaviors among employees. These awareness programs are often the first step in involving the participants in the intervention and referral processes. One program with this format, reported by Payne, Monti, and Winer (1976), was conducted by the Spokane Regional Drug Abuse Training Center. The 60 staff participants, selected by management from a large northwestern industrial corporation, received 9 hours of training. The impetus for the workshop was on-the-job personal safety hazards due to drug abuse. Prevention subjects included identification, pharmacology, behavior effects, crisis intervention, and corporate liabilities.

The Alcohol Awareness Education Seminar conducted by the U.S. Air Force (Colson 1977) follows a similar program theme. This 8-hour program is designed to give the entire range of information on alcohol and its use, promote self-awareness of individual drinking habits, and emphasize responsible drinking. Developed in 1975 by the Air Force's Department of Social Action Training at Lackland Air Force Base in Texas, it parallels early school drug education curricula in its emphasis on pharmacological and legal aspects of alcohol use. It covers the scope and impact of alcohol use in the United States, definitions of problem drinkers and alcoholics, effects of alcohol, stages of alcoholism, and ways to use alcohol wisely. One of the 10 sessions also deals with values clarification, emphasizing the development of personal values and knowledge about one's own behavior in relation to alcohol.

Workplace programs that include a number of prevention components are likley to be more effective than programs that have only one component. Just as evidence has accumulated that honest, straightforward information can be helpful in comprehensive school-based substance abuse prevention programs, certain kinds of accurate health information can enhance prevention programs in the workplace as one component of a total approach. One example, the Navy Alcohol Safety Action Program, has an educational approach centering on an intensive 36-hour course combining information about alcohol misuse and alcoholism with intensive personal and interpersonal experiences designed to increase awareness and understanding of "values, attitudes, and beliefs and how these form the basis for each individual's approach to living and to the use of alcohol" (U.S. Navy).

However, many traces remain of the early youth-oriented prevention activities that focused on knowledge and/or scare tactics. A recent *Personnel Journal* article (Jennings 1977) recommended that management "take the initiative" in prevention programs and suggested that successful training efforts feature younger employees and ex-addicts emphasizing potential dangers of drug use within the context of a drug-using society. Schreier (1974) suggests that substance abuse education be started even earlier, urging that business education programs include drug education for their students, preparing them to face the problem in work settings and to take "meaningful action." He places the courses in the management curriculum in personnel, behavior and organization, and management theory classes. Recognizing that knowledge alone was not the critical variable, youth programs shifted to the present positive developmental approaches. It will be interesting to see if workplace-based substance abuse prevention efforts effectively follow the same path.

When the term substance abuse prevention is used in business, industry, and labor programs, it usually means the prevention of greater substance problems, both personal and job related, for the particular employee. However, the concept of preventing specific problems before they occur or of promoting positive life development does not seem to be addressed in most employee program at this point. The exceptions are notable for their uniqueness. One of these, the Charlotte, North Carolina, Drug Education Program remains a pioneer prevention project, working with area companies in broad health-promotion activities (Webb 1980). Another example, the Cameron, Elk, McKean, and Potter Counties Counseling Services in Bradford, Pennsylvania, began an Industrial Prevention Program in 1976. Middle management supervisors and foremen took a 10-unit course that included motivation, active listening skills, coping methods and stress management, understanding employee behavior, communication skills, leadership skills, crisis theory and intervention skills, and problem-solving strategies. Participating industries report benefits in productivity, lower absenteeism, lower scrap materials rates, and fewer disciplinary actions (Bowler 1980).

The projects described demonstrate a relatively new and promising use of prevention resources by business and industry, e.g., the utilization of programs and personnel from community-based nonprofit agencies that specialize in substance-specific and/or general prevention modalities. The activities can be provided on a purchase-of-services basis or as part of (government) funded services to the community. The latter case often results from innovative program and audience development by the agency

staff who then "sell" the idea in the corporate setting. Drug education/prevention agencies and community mental health centers, through their mandated consultation and education functions, are the most common providers of these services.

Program Goals

The possible prevention program topics mentioned above, which will be discussed further under the broader rubric of health promotion, address both physical and mental status factors. Clearly a drug abuse prevention rationale is needed that permits the inclusion of some of the more innovative, skill-building, stress-relieving, and workplace climate-improving programs. And the more the various strategies are directed at the entire employee population, without identifying those with problems, the more they will serve as true preventive measures. Thus health promotion strategies may be one of the most effective substance abuse prevention methods for adults. The success of the alternatives concept with youth, which has demonstrated that lifestyles and activities incompatible with substance abuse serve as a highly effective means of prevention, may be paralleled with adults through participation in health promotion activities (alternatives), e.g., fitness centers.

Another way of looking at the concept of prevention in the workplace is to ask what prevention programs want to prevent--or promote. The purpose of most substance-related programs to date has been to deal with problems associated with impaired job performance. Employers do not ordinarily assume responsibility for the personal and social growth of employees toward their full human potential; rather, they are interested primarily in employees' effectiveness on the job. Therefore, a prevention program in the workplace will logically first attempt to prevent problems that interfere with job performance. However, helping employees to achieve personal, social, and above all, professional growth, could be an important secondary and concurrent goal of such programs.

Health Promotion

Types of Activities

Collings (1979, p. 8) suggests two subcategories of health promotion "which, though conceptually distinct, grade into one another: (1) disease prevention or postponement; and (2) wellness improvements." The latter approach represents primarily still-to-be-explored opportunities to emphasize positive behaviors that can improve the wellness state. Weinberg, Kiefhaber, and Goldbeck (1980) used a continuum to delineate various health program options:

Environmental Reform	Health Information Dissemination	Voluntary Lifestyle Changes	Risk Identification	High-Risk Intervention.

Examples of the first category include efforts to improve the mental health status of employees through better working conditions, e.g., less stressful management styles, work area restructuring, and cafeteria food changes. The second activity level includes posters, mailings, and presen-

tations, with a number of corporations currently employing health educators to carry out these tasks.

Voluntary lifestyle changes encompass projects which bring about smoking cessation, stress management, better fitness, and weight reduction. Cybertek Computer Products offered its employees a $500 "health bonus" if they quit smoking for 1 year (Fielding 1979). Risk identification uses various health-screening laboratory tests, risk appraisals, and physical exams to identify potential physical and mental problems before symptoms appear and referral to treatment is needed.

The final category, high-risk intervention, is actually related to the secondary level of prevention discussed in the previous chapter, the EAP intervention and referral options. Individuals identified with a variety of health conditions, e.g., diabetes, hypertension, or alcoholism, are referred for treatment and/or rehabilitation.

Unfortunately most worksite programs are fragmented or incomplete, offering certain services while not offering others. This diversity of services reflects the newness of the field and the various reasons behind program selection. The primary prevention focus that targets substance abuse behaviors can be seen as one part of worksite health promotion activities or as another dimension added to existing drug and alcohol secondary and tertiary prevention efforts. An earlier section discussed the latter substance-specific example; the following part, therefore, goes on with an overview of the possible health promotion programing activities.

Health Profiles/Risk Appraisals

An important component of most comprehensive health promotion programs in occupational settings has been the health appraisal that usually precedes any program activity. A variety of appraisal instruments are available, but in general, each determines an individual's definable health risks based on a number of factors including age, sex, family history, ethnic background, and current health behaviors. Lifestyle factors such as smoking, drinking, and exercising are included, as are physical measurements such as blood pressure, weight, and blood analysis. The results attempt to show the interaction of various health status and behavior factors. Usually the completed questionnaire is computer processed, and a health forecast is given. The health programs that follow, often prescriptive in nature, are based on the assumption that people will choose to learn new or modified health behaviors and thereby reduce the incidence of serious illness from certain high-risk factors. Some evidence indicates that individuals who participate in the appraisal process modify one or more targeted health behaviors (U.S. Centers for Disease Control 1979).

One programmatic example of the health profile, the StayWell project, was initiated by InterHealth, Inc., a California-based integrated health services organization with a variety of clients, including Irving Trust, American Re-Insurance, Cubic Corporation, National Science Foundation, and Palomar College (Clark 1977). In the last case, Blue Cross provided the StayWell service to the college staff free of charge as part of a pilot study prior to marketing the service itself. In other corporate settings the company has paid the employee costs. American Re-Insurance, for example, sees this as a method for keeping its executives fit, as well as holding down their group-life insurance costs (*Dun's Review* 1973). Dr. Susan Macartney (1978, p. 3) of InterHealth writes that "natural by-products... are enthusiasm for the sponsoring agency (employer) who shows that it cares about its employees, and motivation by the employee to improve his/her own health."

Voluntary Lifestyle Changes

Fitness activities are only one example of voluntary health-behaviors improvement, but they have a long history in the corporate setting and are becoming increasingly widespread today. In 1894 an employee fitness program was first developed at the National Cash Register Company in Dayton, Ohio. The president, John Patterson, began with morning and afternoon exercise breaks for the workers and later added a company gym and park (Martin 1978b). More recently, business executives have shown a real interest in such efforts, and more than 400 major corporations as well as numerous small ones now have exercise programs for some or all of their employees (*Time* 1979a).

The physical fitness activity is probably the most frequently seen health promotion program component, but voluntary health behavior changes can be stimulated in many ways. Ford Motor Company, for example, discovered in a 1972 study that coronary attacks represented only 1.5 percent of all employee health problems but accounted for 29 percent of the total health care costs at its Michigan headquarters (*Business Week* 1978). A cardiovascular risk intervention program was then started to identify and help high-risk employees. Among its projects are stop-smoking clinics, cardiovascular exercise programs, and "heart healthful eating" foods identified in the company cafeterias.

More extensive health programing on a prevention level has also been developed at Brunswick Corporation, which provides services which are available on a voluntary basis, e.g., an exercise program, weight and diet consultation, and cancer and hypertension screening. ARCO's newly developing employee health program includes a pilot stress-adaptation workshop, and General Foods Corporation's self-management program teaches employees about diet, smoking cessation, low back pain reduction, and stress management.

While health is a personal responsibility, individuals often need stimulus, encouragement, and support from various settings and organizations in order to voluntarily change their health behaviors. The many types of potential workplace health efforts that facilitate these changes are just beginning to be explored, with new professionals, e.g., fitness directors, evolving in the process.

Stress Reduction/Management

In a background paper for a 1978 national conference on occupational health promotion programs, the staff of the Washington Business Group on Health linked stress in the workplace with a wide variety of medical, mental health, and drug and alcohol problems (Barrie-Borman et al. 1978). In another paper for the same meeting, Warsaw (1978) noted that individual employees are the primary targets of mental wellness programs in the workplace (and may have problems that are not directly related to their jobs), but often "the problem is attributable to stress to which the entire work unit has been subjected," and in extreme cases, "it is the organization as a whole that is sick" (p. 2).

In many companies techniques aimed at helping employees to manage and/or reduce stress are also included in corporate health promotion and physical fitness programs. Almost as often, however, stress management is singled out as a particularly important and noteworthy task, probably because of the general concern with stress as a major factor in poor health habits and other personal and emotional problems, including substance

abuse. According to a review of health promotion and stress management programs in the workplace, one of the most effective approaches in managing and reducing stress is regular and vigorous exercise. Other techniques mentioned by high-pressure executives surveyed include the modification of work habits, regular sleep, good health habits, compartmentalization of work and nonwork activities, talking with peers on the job, and physical withdrawal from stressful situations (Cohen 1975). Additional approaches in workplace stress education include:

- Assertiveness training, helping individuals to take more control of their lives and stressful events
- Relaxation techniques such as meditation, biofeedback, and guided imagery
- Practice of the "relaxation response," a technique developed by Dr. Herbert Benson
- The incorporation of "relaxation breaks" into one's daily work schedule (a few companies have set up meditation rooms for this purpose).

As this spectrum indicates, the techniques for managing and reducing job-related stress are nearly as varied as individual employees and the stresses that confront them.

Theoretically, these and many other techniques for reducing and managing stress would function as deterrents to poor physical health, substance abuse, emotional problems, and job impairment. Indeed, in an overview of stress management techniques Schwartz (1979) summarized several recent studies indicating that such programs in the workplace had been notably successful. A study of the Emotional Health Program sponsored by the Equitable Life Assurance Society of the United States found that an experimental group using biofeedback techniques "showed statistically significant decreases in symptoms (headaches) and increases in work-related satisfaction and effectiveness" (p. 17) compared to a control group. Other important beneficial side effects of stress management programs, according to Schwartz, include "reducing inappropriate uses of food and drugs and increasing motivation for conditioning and exercise, all components of good health."

Quality of Work-Life Programs

Although rarely associated directly with drug and alcohol abuse in the workplace, programs designed to improve the quality of the work environment and solve organizational problems also deal with some of the most important physical and mental health variables, including job satisfaction and stress. There is some evidence that quality of work-life variables are relevant to drug abuse prevention. One of the main findings of *Work in America* (U.S. Department of Health, Education, and Welfare 1971), a major study of problems in the world of work, was that nonphysical aspects such as job dissatisfaction correlate with a high risk of heart disease, apathy, anxiety, tension, psychosomatic illness, alcoholism, drug abuse, and suicide.

Quality of work life (QWL) is a currently popular concept associated with many different approaches to changing and improving factors in the work environment. Among some employers, improving the QWL has been regarded as a particularly important goal in recent years in view of the growing mood of dissatisfaction and malaise among the American work force generally. For example, a recent survey of the quality of employ-

ment in the United States, funded by the U.S. Department of Labor, found a significant decline in job satisfaction in comparison with previous surveys (Barrie-Borman et al. 1978). Although the causes of this widespread dissatisfaction are difficult to pinpoint, worker protests note regimentation, frustration, and boredom in the workplace, each an indication of underlying turmoil and discontent (Dewar 1979).

QWL programs attempt to alleviate problems in the workplace in a number of different ways, including:

- Facilitating greater participation by line workers in decisions that affect their daily tasks
- Through communication workshops, creating new understandings and closer relationships among coworkers and between supervisors and line workers
- Redefining organizational structures, lines of communication, employee responsibilities, and specific roles
- Breaking up job monotony by creating teams within which workers rotate from one task to another.

Although the results of QWL programs are difficult to evaluate, management specialists often point to the General Motors plant in Tarrytown, New York, as an example of the power of organizational change strategies (Guest 1979). The program was initiated in 1971 when the low morale and productivity of the plant had reached a level that threatened its survival. The plant was characterized by high labor turnover, dirty and crowded conditions, high pressure, poor communication between supervisors and line employees, and frequent disciplinary layoffs and firings.

Essentially, change was initiated by the plant manager, working closely with the union leadership. The first step was management's invitation to line workers to help plan major changes in the plant's production process, in contrast with the former process of handing down orders through the hierarchy. Over time, management and workers joined in mutual problem-solving sessions. Throughout, the program provided intensive training in communications and problem solving. Ultimately, all the plant's 3,800 workers were included in the program. The result, after 7 years and an investment of $1.6 million, was a complete turnaround. Absenteeism in the plant went from 7 1/4 percent to between 2 and 3 percent. Grievances declined from more than 2,000 in 1971 to only 32 in 1978. In the words of one observer, "In 1970, the plant was known as having one of the poorest labor relations and production records in GM. In seven years, the plant turned around to become one of the company's better run sites" (Guest 1979, p. 76). In summary, programs designed to better the quality of the work environment can help directly to improve employee morale, job satisfaction, and effectiveness, and indirectly to promote healthier employees.

Comprehensive Programing Examples

One of the most complete corporate health promotion efforts, frequently cited as a model program, is run by Kimnberly-Clark Corporation in Neenah, Wisconsin (Martin 1978b). Their approach to health care emphasizes wellness, not illness, and is paid for entirely by the firm. Health maintenance or improvement, rather than medical assistance after illness occurs, is the primary goal. Effectiveness is measured through an extensive computerized health history that documents changes in individuals.

The insurance carrier is also working with the corporation to compare the hospitalization costs and incidences of major illness for program participants to the costs for a control group who are not included in the program. The project begins for each participant with a full health evaluation, including an extensive medical history, a series of health tests, a complete physical examination, and a treadmill test. The employees receive individualized health prescriptions based on a computer analysis of their health status. A series of laboratory tests are also included in the multiphasic screening unit: hemoglobin, blood sugar, cholesterol and triglycerides, liver function, urinalysis, chest X-ray, breathing, skin fold thickness and body density to determine percent of body fat, electrocardiogram, hearing, vision, blood pressure, and temperature. Kimberly-Clark has invested more than $2 million in the program and hopes eventually to have all of its employees at the Wisconsin plant enrolled. Participation to date has far exceeded their initial expectations.

Another model program has been developed by the State of Kansas, Kansas Department of Health and Environment. The Program to Lower Utilization of Services (PLUS) is a low-cost employee health improvement program. It was designed for business and industry to offer as a benefit to their employees, in order to keep workers well and performing productively on the job. PLUS emphasizes the need for individuals to take control of their own health. Through a workbook, the program helps participants identify the health risks caused by their personal lifestyle. The project then assists participants to change that part of their life or behavior which may be harmful to their health. Among the conditions addressed by PLUS are overweight, smoking, poor dietary habits, accidents, alcohol abuse, mental health problems, tension, stress levels, high blood pressure, and poor physical fitness. Individual counseling for each of these areas is provided, as are behavior-change strategies.

Program Design Considerations

In developing an employee health promotion program, certain factors in program design should be considered. WBGH (1978) suggests several variables that influence the selection of activities. Costs are obviously of primary concern in most cases, with investment in new or remodeled facilities not possible in the majority of settings. The eligibility factor is often decided also on a cost basis, with management personnel or high-risk employees targeted. Some firms include both hourly and salaried workers, and a few include dependents as well. Staffing requirements can be met in a variety of ways, including in-house personnel, consultants, and other agencies' staff. Finally, incentives and participation rates significantly affect the cost of various activities and influence program design. Chadwick (1979) also notes that the setting should be very close to potential participants, convenient for health surveillance and monitoring, conducive to both mass communication and individual learning, and supportive in order to influence behavioral factors. The various community programs and personnel available will help determine how these cost issues are decided. The following sections detail some of the possibilities.

Resources Available. Companies or unions that have encouraged the development of health promotion programs have found a variety of helpful resources available. The more publicized programs have usually been comprehensive projects with large in-house fitness and/or health facilities fully staffed by exercise experts and medical personnel. Health educators

are often included also. However, this level of activity is beyond the resources of most companies, even the most pragmatic consideration of where to put the facilities within the present structure(s).

One solution adopted by firms unable to build their own facilities is to pay part or all the costs of enrolling in private health clinics. Another possibility is a consortium model, in which a group of small companies jointly contract for services (Akabas et al. 1979). Contracts with independent consultants for several specific services have been utilized, but this can result in a fragmented, incomplete program with little interactive effect among the health topics covered. Community resources provide another important option, with several variations. Corporate health promotion personnel can diagnose and refer employees to community programs for services as needed. These can be paid for by the company, which acts as broker. Another option is a corporate membership in a YMCA, for example, or subsidized employee memberships in such organizations.

Hospitals have recently entered the health promotion services field, offering education, counseling, and behavior change activities. Mount Auburn Hospital in Cambridge, Massachusetts, operates "The Whole Life" program, a series of community health education courses, on a fee basis. They market a program to industry that includes stress management and smoking cessation (Appelbaum 1979). El Camino Hospital in California has developed a series of revenue-producing health programs that are being offered on a pilot basis to five local industries; and Augusta University Hospital works with local agencies, including the health department, the Red Cross, and heart, lung, and cancer associations, to avoid program duplication in its new fee-for-service "wellness center" (Appelbaum 1979).

A recent American Hospital Association survey found that 1,224 respondent hospitals were providing corporate health programs (Behrens 1979). Services offered included screening, physicals, health education, and program design. The W.K. Kellogg Foundation funded in 1976 a 4-year hospital-based health education grant to implement and evaluate a multicommunity program aimed at health promotion, disease prevention, and better health services utilization (Appelbaum 1979). In another hospital setting, the Swedish Wellness Center uses a community resources broker model (Adamson et al. 1979). Services for a range of health promotion activities are provided by various community groups, including agencies and consultants, on a contractual or retainer basis.

Insurance companies have also investigated the possibility of funding, or providing on a fee basis, health promotion services. Several of the Blue Cross plans are piloting these programs, usually through direct funding of the projects rather than as benefits added to reimbursement contracts. A survey of Blue Cross and Blue Shield Plans (Applebaum 1979) reported their concern for the cost effectiveness of health promotion and the need for program evaluation. A major question is which activities should be insured (prepaid) and which should be paid directly by the subscriber. W. J. McNerney, president of the Blues Association says, "There is no conflict between the provider and the carrier as to whether this is a desirable idea and whether it should be encouraged....The major point to be made is that undoubtedly Blue Cross and Blue Shield will get more into the area of health promotion, and they want it to succeed" (Appelbaum 1979, p. 116).

A final resource option is the service companies that have evolved, primarily in the past decade, to provide health behavior change services for the workplace. The more developed of these provide a full range of diagnostic, prescriptive, educational, and evaluative services designed specifi-

cally to the particular needs of the corporation or union. These activities can be offered either at the health service company's site(s) or directly at the workplace. One of the oldest organizations of this type is the Life Extension Institute, sponsored until just after World War II by the Metropolitan Life Insurance Company. Individual companies purchased its services for their key executives; today the Institute stresses health appraisals and health promotion strategies among its various programs.

Staff. The staff for health promotion programs includes as many personnel types as the services and activities to be covered. Samples of professionals hired in such programs include health educator, exercise physiologist, counselor, social worker, mental health prevention professional, substance abuse counselor, and nutritionist.

The location of the programs and, hence, staff within the corporate structure can affect employee perceptions and participation. The medical department or the personnel office are the two most frequent organizational sites for program management, but separate training and development departments have also initiated some activities. Whether health activities are company sponsored, bargained for, or jointly sponsored by union and management, they can be supervised from a range of corporate locations.

Obviously, qualified, trained personnel should be used in any health promotion activity, selected according to standards and guidelines offered by professional organizations such as the American Association of Fitness Directors in Business and Industry. Their professional background, as well as location and status in the organization, are important considerations also. A primary concern for some employees has been confidentiality, even on a prevention basis. Diagnostic health data and appraisals, for example, are seen as private information; access to that data by a supervisor making a promotion decision is inappropriate and can be threatening to voluntary employee participation. Programs located, therefore, in personnel offices or where information is not secure can be a deterrent, as can offices or staff identified as "drug counselors." The fear of being stigmatized is another legitimate concern and will alienate employees, limiting their participation.

Management personnel have the option of, even responsibility for, including union representatives and supervisors in the program planning process. The health promotion offering should not be seen as something forced on employees by a paternalistic employer. The staff of WBGH (1978) found that in many cases training might be needed to win the support of managers and supervisors for prevention-oriented programs. "Managers and supervisors are often reluctant to accept the notion that programs...are necessary," the WBGH report noted. "Even when the need is accepted, it is often difficult for managers and supervisors to understand and cooperate." On the other hand, "medical professionals often know as little about the work environment and responsibilities of their clients as managers know about the medical professions" (Barrie-Borman et al. 1978, p. 18). Health promotion professionals often need as much training about the functions and processes of the workplace as managers and supervisors need training about health, wellness, and prevention.

Participation. The employee concerns mentioned above are just a few examples of the many factors which can influence voluntary participation in the various health programs available through the workplace. Insufficient systematic research has been conducted to determine which factors

influence the initiation and continuation of health behavior changes, particularly those begun under corporate sponsorship. Anecdotal information is now the primary source of data, and a great deal more research is needed in order to understand who participates and why, and how these rates can be improved.

However, some studies have found that volunteer participation in physical fitness programs is positively related to socioeconomic status, i.e., the higher an employee's socioeconomic status, the more likely the employee is to participate in such a health program and view it as beneficial; people in higher socioeconomic classes may also have more time to participate (Heinzelmann 1973). According to some reports, a possible obstacle to the success of health promotion programs in the workplace stems from the unwillingness of employees who most need these programs to take advantage of them. A study of participation in the supervised exercise program sponsored by the Exxon Corporation (Haskell and Blair 1979, p. 12) found that "when a comparison was made between those who entered the program and the non-participants it was observed that the latter group was older, smoked more, had higher blood fats, higher blood pressure, more heart disease, and poorer treadmill performance. Thus, ...those who might have benefited most from the program elected not to participate." Xerox found that only one-third of the eligible participants chose to be involved at their most complete fitness center in Virginia, and the Cardio-Fitness Center in New York City reports a 15-percent dropout rate (*Time* 1979a).

Prevention-oriented programs in the workplace often rely primarily on voluntary participation, and for these programs aggressive publicity and high visibility are particularly important, at least until they gain wide recognition through word of mouth and/or visible employee results. Continuing public relations and presentations, including active recruiting and small group discussions, are also recommended, particularly those done by union leaders. A knowledge base is often necessary in order for an individual to choose to become involved, and health education media efforts should be visible throughout the work setting, e.g., cafeteria menus, posters, pay envelope inserts. Information should also include program descriptions; fees, if any; benefits; and how to become involved. Financial incentives have also been tried in some circumstances; for example, Speedcall Corporation paid employees for giving up smoking (Fielding 1979).

The time available for programs will also produce varying rates of involvement, with scheduling options including activities on company time, employee time including just prior to or following work, and a shared-time basis. Employees who have rigid, routine work schedules will have to be accommodated in program timing, while managerial employees will generally have more flexibility in planning their work and participation schedules. Adding to the time factor is the location, and hence, convenience of the program. Transportation arrangements and locker room and shower facilities for exercise activities are examples of important convenience factors.

A survey of employee interests and needs is important prior to initiating health promotion programs--and could continue periodically in order to revise and up-date program components. A wide range of activities should be offered, particularly those related to physical fitness, including noncompetitive and individual options as well as team or group type programs. Motivating factors, such as socialization, new learning opportunities, and recreation are involved in participation rates, and program planners are wise to consider the camaraderie factor in group designs.

edback and evaluation should also be provided, to give participants progress reports and encouragement. Significant others, including spouse, supervisor, and coworkers, influence an individual's motivation and continuation, and should, therefore, be made aware of the programs or given an opportunity to participate also. In one study it was found that "the wife's attitude towards the (health promotion) program was highly correlated to her husband's adherence (Heinzelman and Bagley 1970). Eighty percent of the participants whose wives had positive attitudes showed good to excellent continuation as compared with a 40-percent rate for men whose spouses were negative or neutral. Another study found that the supervisor's supportive attitude influenced continued employee participation (Durbek et al. 1972).

One additional concern was expressed by Dr. Faustina Solis who states, "It is a great mistake to assume that generalized health promotion activities can be successful in special populations" (Den Boer 1980, p. 9). Differences in cultural attitudes, language differences, and sex-role expectations can all hamper health behavior change. Several programs have been successful at reaching ethnic minorities, women, and other special population groups. The Stanford Heart Disease Prevention Program has been effective with Spanish-speaking residents of three communities, and two programs in the Southwest, the Centro Campesino de Salus and the New Mexico Health Coalition, have reached their target populations while respecting the culture and traditions of the people (Den Boer 1980). Corporations with special populations should build on these health promotion experiences in attracting their employees.

Affective Considerations in Participant Motivation. The final topic to be considered in motivating participation is the least often addressed in corporate health promotion, yet it is probably the most significant. The affective dimension is a primary factor in health decisionmaking, involving the feelings, attitudes, benefits, and values which a person holds. Drug abuse prevention efforts and smoking cessation programs, for example, have found that knowledge alone is insufficient to bring about positive behavior changes. The attitudes and values of the individual are significant factors in determining substance use/abuse behavior, and programs have been developed that do not focus on drugs but instead examine and enhance the affective status of an individual.

It is important to understand what affective factors include. From a variety of sources, the following three levels have been identified:

Intrapersonal--includes internal perceptions of self-awareness, self-acceptance, and self-concept; as well as personal skills such as developing one's value system and decision-making.

Interpersonal--includes internal perceptions of awareness, knowledge and acceptance of others, as well as skills with people such as communication and teamwork.

Extrapersonal--includes societal perceptions such as community/institution knowledge and understanding and perspectives on the individual and the group in relation to the environment, as well as skills relating to coping, contributing or changing societal situations such as force field analysis or environmental press (Swisher 1976, Vicary 1977).

In order for individuals to take responsibility for their own health-related behavior, dimensions such as one's perceptions of self-concept, self in relation to others, and potency with one's environment, including the world of work, must be involved. Attitudes to consider include how individuals feel about themselves, their personal health-related values, their peer or colleague options or behaviors, and their perceptions of job-related help or hindrance in health lifestyle.

Historical factors are also important, e.g., what were the cultural values during a person's childhood? In the area of nutrition, family diet patterns could be habits difficult to change because of their emotional components. The issue becomes nutritional information versus family lifestyle. Another example, regarding physical fitness, is frequently seen. If a person's physical education experiences as a youth were negative and unsatisfactory, perhaps creating a sense of not being athletic, then that affective state can impede participation in a fitness activity. Past health experiences can significantly influence current practices, primarily through the affective dimension as feelings and attitudes toward those experiences.

The findings concerning the affective influence coming from the substance abuse prevention field, as well as from other specific health topics, are transferable to the border area of health promotion and wellness and have real importance in program development and implementation. Unfortunately, many health education and promotion program approaches that have been introduced in corporate settings have neglected this aspect of learning and do not, therefore, have adequate impact on their participants' health behavior.

The obvious question then is how the affective domain of health learning and behavior can be included in program development and implementation. A number of companies concerned with these issues have begun to involve specialists from related fields of education, as well as developmental psychologists, in order to plan for these psychosocial dimensions of health behavior. In fact, a new profession has emerged in the past 10 years, that of primary prevention specialist, with training in education, psychology, mental health, health, or social work, to name just a few, and experience in a wide variety of settings, including the workplace. Many who have worked in the area of substance abuse prevention have learned that their programs must include self-concept, developing interpersonal skills and relationships, decisionmaking, choosing personal values, and stress management components, either directly or indirectly. This personalization of health values, awareness, and choice is critical to an individual's active health behavior, participation, and/or change. How employees are motivated or helped to improve their behavior or to join a health program can include a goal-setting process that considers attitudes and feelings, present values and lifestyle, and feelings about themselves relative to the health behavior being addressed. Real-life mirrors in the exercise room, or mirrors of the mind, can both affect how people view themselves in an athletic program!

A variety of resource materials and organizations can be used to plan for the affective dimension. The field of health education itself has produced some excellent books in recent years that apply to adult audiences as well as to youth, with learning strategies regarding behavior change that purposely involve the learner's attitudes, values, and feelings (Read et al. 1977). A number of national organizations interested in prevention or health promotion have also produced materials available to corporate program planners. The National YMCA, for example, has a series of publi-

cations that includes values approaches to health behavior (Glashagel et al. 1976). In addition, many Ys have staff trained to plan or present these programs. Affective assessments and strategies can be designed to help employees choose to be involved, to set goals consistent with their health values, and to actualize these on a continuing basis. The end result will not be just an awareness of facts, suggests Felton (1977), but an emotional conviction and both attitudinal and behavioral changes.

Evaluation and Cost Benefits. Green (1979, p. 107) suggests that it is "premature to expect most health promotion programs, at their current state of development, to have measurable health outcomes for evaluation." He further suggests that measuring the impact on knowledge, attitudes, and beliefs, as well as behavioral or environmental changes, may be the most important assessment currently possible. Outcome evaluation may measure both pragmatic factors, e.g., cost-benefit results, or human factors, e.g., lives improved or saved in health dimensions. Process evaluation of health promotion activities should include what, how much, and how the program is conducted, including staff and materials assessment. Each aspect of evaluation is important and should be planned and funded at the onset of program development and implementation. Internal as well as external evaluators should be included, helping to avoid biased or vested-interest results.

Chadwick (1979) suggests that cost-benefit analyses for health promotion and prevention programs in the workplace are likely to require highly specific formulas depending on particular factors such as occupational setting and method of service delivery. Probably the most useful solution is to plan program services on the basis of an analysis of individual risks, i.e., in order to achieve a high cost-benefit ratio, the program should emphasize a high-risk, high-yield approach. He notes that this is rarely done in workplace programs today. According to his estimates, the optimum form of health promotion programing for cost-benefit purposes is smoking cessation. The most popular programs, however, offer exercise and fitness, yet these hold the lowest priority in terms of cost-benefit effectiveness. They are often the most expensive programs to implement, but offer the fewest immediate and/or measurable benefits.

Examples of the results currently available suggest that various health promotion efforts have proven to be beneficial in corporate terms. For example, Northern Natural Gas Company in Omaha found that significantly fewer days were lost to sickness for those participating in the aerobic program than for those not involved (Martin 1978a); and regular users of the gym at Occidental Life Insurance Company of California are absent only half as often as nonparticipants (Martin 1978b). Participants in a 12-month exercise training program for NASA employees reported being able to work harder mentally and physically, enjoying their jobs more, and finding work routines less boring (Durbek et al. 1972). These self-reports are similar to results from a variety of other worksite settings, but increased productivity was not objectively measured.

The Sentry Corporation (Cook 1979) has job satisfaction as a goal while attempting to improve productivity in a cost-effective way. All employees are eligible in the company health program, with a flextime schedule allowing better participation opportunities. The company reports that a mid-manager's replacement cost ranges from $250,000 to $500,000 and therefore, its program costs are well justified. They have already found an increase in the use of health benefits and sick leaves. Kristein (1977) estimated that high-risk individuals, 10 percent of a company's personnel, can

account for 40 to 60 percent of the corporation's total annual medical care spending. Insurance carriers, aware of these factors, are reducing group premium rates for some worksite programs. Speedcall Corporation, for example, was offered a 5-percent reduction as a result of a successful employee smoking-cessation effort.

The Gillette Company (Fielding 1979), which has an in-house medical department directed toward comprehensive health programing including prevention, estimated total savings to the company in 1 year to be $1.2 million. Recognizing the potential savings, some companies even provide fiscal incentives to get employees to participate. Fielding also reported on a variety of financial incentive programs including Mobil's annual bonus reward system for employees who stay healthy. Speedcall pays $7 per week to employees for any week in which they do not smoke on the job, and Sears, Roebuck in New York City gives tuition rebates on smoking cessation classes to employees who quit for 6 months or more. Many foreign companies have also initiated similar prevention activities because of the hoped-for financial savings. Shain (1978) reports that over 100 Canadian corporations have programs, and some Provincial Governments are providing support, e.g., Ontario will provide up to $10,000 in matching funds for companies developing employee exercise programs (Gerus 1979). The Health Insurance Association of America, in a recent review of about a dozen workplace health programs, concluded that preventive health programs can save millions of dollars for companies by lowering medical costs and reducing the amount of workers' time off (Associated Press 1981). Although insufficient evaluations have occurred, preliminary data suggest both corporate cost reduction and employee health and satisfaction to be promising outcomes of worksite health promotion programing.

Summary

Prevention approaches in the workplace offer new optimism regarding improved individual health status; increased corporate service opportunities; reduced individual, corporate, and social costs of impaired health; and expanded potential audiences. The prevention orientation stressed during the past decade in drug abuse programing offers an experience and knowledge base for new program design and implementation in a variety of health areas. The comprehensive approach which addresses both individual and environmental prevention variables is appropriate for a workplace setting, targeting both employees and their families. The NIDA continuum of prevention activities is similar to activities currently provided by many programs in the workplace and can provide a framework of potential strategies, including information, education, alternative or enhancing activities, and early intervention. The sponsorship, e.g., the workplace, and the modality, e.g., drug abuse prevention, should join now in a significant effort which has great potential for improving the health status of millions of people.

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Appendix

Sources of Additional Information about Drug Abuse Prevention/Health Promotion Programs in the Workplace

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